

U.S. Patent Application No. 10/767,248  
Attorney Docket No. 351913-992820 (2102397)

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1. (previously presented) A multi-operational amplifier system comprising:  
a plurality of operational amplifiers each having inputs; and  
a controller configured to interconnect the inputs of the plurality of operational amplifiers to form an adaptive input range of said system.
2. (original) The multi-operational amplifier system of claim 1 wherein an input of one of said plurality of operational amplifiers is coupled to an input of at least one other of said plurality of operational amplifiers.
3. (currently amended) ~~The multi-operational amplifier system of claim 1~~ A multi-operational amplifier system comprising:  
a plurality of operational amplifiers each having inputs; and  
a controller configured to interconnect the inputs of the plurality of operational amplifiers to form an adaptive input range of said system;  
wherein each of said plurality of operational amplifiers having a first input, the first input of one of said plurality of operational amplifiers being coupled to a first node, the first inputs of at least two others of said plurality of operational amplifiers being coupled to a second node, the second node being different than said first node.
4. (currently amended) ~~The multi-operational amplifier system of claim 1~~ A multi-operational amplifier system comprising:  
a plurality of operational amplifiers each having inputs; and  
a controller configured to interconnect the inputs of the plurality of operational amplifiers to form an adaptive input range of said system;  
wherein each operational amplifier includes a compensation network, and an output of one of said plurality of operational amplifiers is coupled to an input of a compensation network of at least one other of said plurality of operational amplifiers.

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5. (currently amended) A multi-operational amplifier system comprising:  
a first operational amplifier having an input formed of a NZ NMOS transistor;  
a second operational amplifier including an input formed of an N-type NMOS transistor;  
and  
a controller configured to adaptively interconnect the inputs to form an adaptive input range of said system.
6. (currently amended) A multi-operational amplifier system comprising:  
a first operational amplifier having an input formed of an NZ NMOS transistor;  
a second operational amplifier including an input formed of a PMOS transistor; and  
a controller configured to adaptively interconnect the inputs to form an adaptive input range of said system.
7. (currently amended) ~~The multi-operational amplifier system of claim 6 further comprising:~~ A multi-operational amplifier system comprising:  
a first operational amplifier having an input formed of an NZ NMOS transistor;  
a second operational amplifier including an input formed of a PMOS transistor;  
a controller configured to adaptively interconnect the inputs; and  
a third operational amplifier having an input formed of a N-type NMOS transistor.
8. (currently amended) A multi-operational amplifier system comprising a first operational amplifier having an input formed of a NZ NMOS transistor and of an n-type NMOS transistor, a second operational amplifier having at least one input, and a controller configured to adaptively interconnect the input of the first operational amplifier and the input of the second operational amplifier to form an adaptive input range of said system.
9. (currently amended) A multi-operational amplifier system comprising:  
a plurality of operational amplifiers, one of said operational amplifiers having a fixed bias, another of said operational amplifiers having an adaptively switchable current bias; and  
a controller to adaptively interconnect the plurality of operational amplifiers and to select

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the adaptively switchable current bias.

10. (currently amended) A multi-operational amplifier system comprising:  
a plurality of operational amplifiers, one of said operational amplifiers having a switchable bias, another of said operational amplifiers having a switchable current bias; and  
a controller to adaptively interconnect the plurality of operational amplifiers and to select said bias.

11. (currently amended) A multi-operational amplifier system comprising:  
a plurality of operational amplifiers, one of said operational amplifiers having a switchable bias, another of said operational amplifiers having an adaptively switchable current bias; and  
a controller to adaptively interconnect the plurality of operational amplifiers to select said bias.

12. (original) The multi-operational amplifier system of claim 11 wherein said another operational amplifier adaptively switches bias based on the switchable bias of said one operational amplifier.

13. (currently amended) ~~The multi-operational amplifier system of claim 11~~ A multi-operational amplifier system comprising:

a plurality of operational amplifiers, one of said operational amplifiers having a switchable bias, another of said operational amplifiers having an adaptively switchable bias; and

a controller to adaptively interconnect the plurality of operational amplifiers to select said bias;

wherein said another operational amplifier selectively switches a compensation network based on the compensation usage of said one operational amplifier.

14. (previously presented) A multi-operational amplifier system comprising:  
a first operational amplifier configured as an output transconductance amplifier;

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a second operational amplifier configured as an output transconductance amplifier;  
a third operational amplifier configured as a folded cascode operational amplifier; and  
a controller configured to adaptively interconnect the first operational amplifier, the second operational amplifier, and the third operational amplifier.

15. (original) The multi-operational amplifier system of claim 14 wherein said first operational amplifier includes a PMOS input differential pair.
16. (original) The multi-operational amplifier system of claim 14 wherein said second operational amplifier includes an NZ NMOS input differential pair.
17. (original) The multi-operational amplifier system of claim 14 wherein said third operational amplifier includes an N-type NMOS input differential pair.
18. (original) The multi-operational amplifier system of claim 14 wherein the first, second, and third operational amplifiers each comprise an output stage that includes a source follower.
19. (currently amended) A multi-operational amplifier system comprising:  
first, second, and third operational amplifiers each configured as an output transconductance amplifier, and a controller configured to adaptively interconnect the first, second, and third operational amplifiers to form an adaptive input range of said system.
20. (original) The multi-operational amplifier system of claim 19 wherein the first operational amplifier includes a PMOS input differential pair.
21. (currently amended) ~~The multi-operational amplifier system of claim 20~~ A multi-operational amplifier system comprising:  
first, second, and third operational amplifiers each configured as an output transconductance amplifier, and a controller configured to adaptively interconnect the first, second, and third operational amplifiers;  
wherein the first operational amplifier includes a PMOS input differential pair; and

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wherein said second operational amplifier includes a NZ NMOS input differential pair.

22. (currently amended) ~~The multi-operational amplifier system of claim 20~~ A multi-operational amplifier system comprising:

first, second, and third operational amplifiers each configured as an output transconductance amplifier, and a controller configured to adaptively interconnect the first, second, and third operational amplifiers;

wherein the first operational amplifier includes a PMOS input differential pair; and  
wherein each of the first, second and third operational amplifiers includes a configurable compensation network.

23. (original) The multi-operational amplifier system of claim 22 wherein the third operational amplifier includes a N-type NMOS input differential pair.

24. (currently amended) A multi-operational amplifier system comprising:  
a plurality of operational amplifiers; and

a configuration circuit to adaptively interconnect the plurality of operational amplifiers so as to form an adaptive input range of said system, said configurable circuit including one of non-volatile fuses, digital control signals, registers, or metallization interconnects.